What is Claimed is:

1. A surface acoustic wave filter comprising:

a piezoelectric substrate;

at last an input IDT electrode arranged on said piezoelectric substrate; and

at least an output IDT electrode arranged on said piezoelectric substrate,

wherein a pitch of electrode fingers of said input IDT electrode and a pitch of electrode fingers of said output IDT electrode are different from each other.

2. The surface acoustic wave filter according to Claim 1, wherein the pitch of electrode fingers of the IDT electrode larger in number of electrode fingers in said input and output IDT electrode is larger than the pitch of electrode fingers smaller in number of electrode fingers.

3. A surface acoustic wave filter comprising:

a piezoelectric substrate;

at least an input IDT electrode arranged on said piezoelectric substrate; and

at least an output IDT electrode arranged on said piezoelectric substrate,

wherein the metalization ratio of said input IDT electrodes and the metalization ratio of said output IDT electrodes are different from each other.

4. The surface acoustic wave filter according to Claim 1, wherein the metalization ratio of an IDT electrode larger in number of electrode fingers in said input and output IDT electrodes is lower than the metalization ratio of an IDT electrode smaller in number of electrode fingers.

5. The surface acoustic wave filter according to any one of Claims 1 to 4, wherein if an IDT electrode has a plurality of electrode finger pitches, the pitch of main excitation electrode fingers is set as a basic pitch.

6. The surface acoustic wave filter according to any one of Claims 1 to 4, wherein a peak frequency of a radiation characteristic of said input IDT electrode is substantially equal to a peak frequency of a radiation characteristic of said output IDT electrode.

7. The surface acoustic wave filter according to Claim 6, wherein one of said input IDT electrode and said output IDT electrode comprises a first IDT electrode including a pair of electrode fingers opposed to each other;

the other of said input IDT electrode and said output IDT electrode comprises a second IDT electrode including a pair of electrode fingers opposed to each other, and a third IDT electrode including a pair of electrode fingers opposed to each other, said second IDT electrode being placed on one side of said first IDT electrode, said third IDT electrode being placed on the other side of said first IDT electrode;

said first, second, and third IDT electrodes are arranged along a direction in which a surface acoustic wave propagates; and

the peak frequency of the radiation characteristic of said first IDT electrode is substantially equal to the peak frequency of the radiation characteristic of each of the second and third IDT electrodes.

8. The surface acoustic wave filter according to Claim 6, wherein one of said input IDT electrode and said output IDT electrode comprises first, fourth, and fifth IDT electrodes each including a pair of electrode fingers opposed to each other;

the other of said input IDT electrode and said output IDT electrodes comprises a second and third IDT electrodes each including a pair of electrode fingers opposed to each other;

said second and third IDT electrodes are placed on opposite sides of said first IDT electrode;

said fourth IDT electrode are placed on the side of said second IDT electrodes opposite from the side on which said first IDT electrode are placed;

said fifth IDT electrode are placed on the side of said third IDT electrode opposite from the side on which said first IDT electrode are placed;

said first, second, third, forth and fifth IDT electrodes are arranged along a direction in which a surface acoustic wave propagates; and

the peak frequencies of the radiation characteristics of at least more than one of the group of said first IDT electrode, and the group of said fourth and fifth IDT electrodes, and the group of said second and third IDT electrodes are substantially equal to each other.

9. The surface acoustic wave filter according to Claim 6, wherein the film thickness of said first IDT electrode and the film thickness of each of said second and third IDT electrodes are different from each other.

10. The surface acoustic wave filter according to Claim 6, wherein the material of said first IDT electrode and the material of each of said second and third IDT electrodes are different from each other.

11. The surface acoustic wave filter according to Claim 7, wherein the metalization ratio of said first IDT electrode and the metalization ratio of each of said second and third IDT electrodes are equal to each other;

the number of electrode fingers of said first IDT electrode is larger than the number of electrode fingers of each of said second and third IDT electrodes; and

the electrode finger pitch of said first IDT electrode is larger than the electrode finger pitch of each of said second and third IDT electrodes.

12. The surface acoustic wave filter according to Claim 7, wherein the metalization ratio of said first IDT electrode, the metalization ratio of said second IDT electrode and the metalization ratio of said third IDT electrode are different from each other.

13. The surface acoustic wave filter according to Claim 7, wherein a plurality of filter tracks each having first, second, and third IDT electrodes, and first and second reflector electrodes are formed on said piezoelectric substrate, and said plurality of filter tracks function as one filter in cooperation with each other.

14. The surface acoustic wave filter according to Claim 13, wherein each of said plurality of filter tracks is identical in configuration to the others.

15. The surface acoustic wave filter according to Claim 13, wherein at least one of said plurality of filter tracks is different in configuration from the others.

16. The surface acoustic wave filter according to Claim 7, further comprising a first reflector electrode placed on the opposite side of said second IDT electrode on said piezoelectric substrate opposite from the side on which said first IDT electrode are placed; and

a second reflector electrode placed on the side of said third IDT electrode on said piezoelectric substrate opposite from the side on which said first IDT electrode are placed,

wherein said first, second, and third IDT electrodes and said first and second reflector electrodes are arranged along a direction in which a surface acoustic wave propagates.

17. A method of manufacturing a surface acoustic wave filter, comprising

a piezoelectric substrate;

an input IDT electrode arranged on the piezoelectric substrate; and

an output IDT electrode arranged on the piezoelectric substrate,

wherein said method makes a pitch of electrode fingers of said input IDT electrode and a pitch of electrode fingers of said output IDT electrode different values.

18. A communication device comprising:

a transmitting circuit which outputs a transmitted wave; and

a receiving circuit to which a wave to be received is input,

wherein a surface acoustic wave filter according to Claim 1 is used in said transmitting circuit and/or in said receiving circuit.

19. A communication device comprising:

a transmitting circuit which outputs a transmitted wave; and

a receiving circuit to which a wave to be received is input,

wherein the surface acoustic wave filter according to Claim 3 is used in said transmitting circuit and/or in said receiving circuit.